

ABSTRACT OF THE DISCLOSURE

A diagnostic X-ray system includes an imaging system that generates image data sets from shots by subjecting a patient to X-ray exposure, a supporting mechanism that supports the imaging system movably with respect to the patient, a system controller that controls the imaging system and the supporting mechanism in such a manner that shots are repeated at each of a plurality of shot positions set discretely along the body axis of the patient, and an image processing apparatus that generates another image data set covering a range wider than the field of view of the imaging system from the image data sets.